



## Part 1A: Onsite Water Protection Section: Standardize Certain Regulatory Review Procedures

*Reference Session Law 2014-120, Section 29.(b).*

Background: The Durham County Department of Public Health (DCoDPH), Environmental Health Division, Onsite Water Protection Section receives Regulatory Submittals for review under multiple scenarios as provided for in statute and rule relating to onsite wastewater systems and public swimming pools. The processes for each type of review are described below. For this report the following definitions apply:

DCoDPH-EH – Durham County Department of Public Health, Environmental Health Division

FPF – refers to the North Carolina Department of Health and Human Services, Division of Public Health, Environmental Health Section, Food Protection and Facilities Branch.

PE – Registered Professional Engineer as defined in G.S. 89C-3

REHS – Registered Environmental Health Specialist as defined in G.S. 90A-51

OSWP – refers to the North Carolina Department of Health and Human Services, Division of Public Health, Environmental Health Section, Onsite Water Protection Branch

State Report – The report submitted by the North Carolina Department of Health and Human Services, Division of Public Health, Environmental Health Section to the Environmental Review Commission in accordance with SL 2014-120, Section 29.(i).

- I. Septic systems with design daily flows  $\geq$  3,000 total gallons per day [15A NCAC 18A .1938(e)] or for treatment of industrial process wastewater (IPWW) [15A NCAC 18A .1938(f)]: *State review required*
  - A. DCoDPH-EH receives an application for a system that requires state review in accordance with 15A NCAC 18A .1938 (e) or (f) as applicable.
  - B. DCoDPH-EH notifies the OSWP of receipt of the application, fills out a request for review and conveys it to the State with the project submittal. The OSWP assigns the review to a staff PE.
  - C. DCoDPH assists the OSWP with processes outlined in Part 1A Section 1 of the State report.





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- II. Design plans and specifications pursuant to Rule .1938(f). *(This is typically an engineered design that does not specifically require State review but the local department requests State assistance regarding one or more aspects of the design.)*
  - A. DCoDPH-EH receives an application and project Submittal for a septic system from a registered PE.
  - B. DCoDPH-EH determines assistance is required for review of certain elements of the design Submittal. As allowed by 15A NCAC 18A .1939(f), DCoDPH files a Request for Review describing which elements of the Submittal the OSWP should review.
  - C. DCoDPH-EH conveys the Regulatory Submittal and Request to Review to the OSWP.
  - D. DCoDPH-EH assists the OSWP with processes outlined in Part 1A, Section II.B of the State report.
- III. Design daily flow review pursuant to 15A NCAC 18A .1949; *(The local health department is only requesting assistance with determination of the proposed flow for a facility.)*
  - A. DCoDPH-EH receives an application and project Submittal from a registered PE.
  - B. DCoDPH-EH determines a need for OSWP review of the proposed daily design flow pursuant to 15A NCAC 18A .1949. DCoDPH-EH files a Request for Review for a proposal submitted based on 15A NCAC 18A .1949 and conveys it to the OSWP with the Regulatory Submittal.
  - C. DCoDPH-EH assists the OSWP with processes outlined in Part 1A, Section II.A of the State report.
- IV. Design plans and specifications pursuant to Rule .1948(d); *(Proposals intended to overcome an UNSUITABLE classification)*
  - A. DCoDPH-EH receives an application and project Submittal from a registered PE.
  - B. DCoDPH-EH files a Request for Review for a proposal submitted based on 15A NCAC 18A .1948(d) and conveys it to the OSWP with the Regulatory Submittal.
  - C. DCoDPH assists the OSWP with processes outlined in Part 1A, Section II.C of the State report





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- V. Design plans and specifications for flow reduction utilizing low-flow fixtures or low-flow technologies pursuant to Session Law 2013-413 or 2014-120.
  - A. DCoDPH-EH receives an application and a project submittal from a registered PE.
  - B. DCoDPH-EH requests OSWP review for all design plans and specifications for flow reduction utilizing low-flow fixtures or low-flow technologies pursuant to Session Law 2013-413 or 2014-120.
  - C. DCoDPH-EH assists the OSWP as described in Section II of the State report.
- VI. Review of septic systems that require design by a registered PE pursuant to 15A NCAC 18A .1938(d). (*systems identified in rule .1938 not previously mentioned in this report*).
  - A. Application Submittal
    - 1. DCoDPH-EH receives an application and project Submittal for a system that requires design by a PE in accordance with 15A NCAC 18A .1938(d). A REHS authorized by NCDHHS to enforce laws and rules for onsite wastewater systems is assigned to the application review.
  - B. Optional Initial Meeting: The applicant or their consulting PE may request a meeting with OSWP staff to review the preliminary project information base on submittal rules, procedures, and requirements.
  - C. Daily Design Flow Review Process.
    - 1. DCoDPH-EH receives a project submittal for the proposed daily design flow.
    - 2. The assigned REHS issues one of the following types of letters to the applicant, consulting PE, and other applicable parties:
      - a. An approval of the proposed daily design flow;
      - b. A request for revisions to the proposed daily design flow that includes
        - (a) A section detailing any required revisions with citation of the applicable statute or rule;
        - (b) A section detailing any suggested or recommended revisions based upon current knowledge base (guidance, manuals, or standards of practice);
      - c. A request for additional information that includes;
        - (a) A section detailing any required additional information with citations to statutes or rules; and





(b) A section detailing any suggested or recommended additional information based upon current knowledge base (guidance, manuals, or standards of practice).

3. If the proposed daily design flow is approved, then a soil and site evaluation review will be conducted as described in section D below.
4. If the proposed daily design flow is not approved and the required revision and/or additional information identified by the REHS is submitted, then the proposal is reviewed again.
5. If the proposed daily design flow is not approved and the Submitting Party declines to make the require revisions and/or provide the required additional information identified by the REHS, the Submitting Party may request an Informal Internal Review as described in Part 2A of this report.

#### D. Site and Soil Evaluation

1. The REHS receives a copy of the site and soil report prepared by the applicant's consulting Licensed Soil Scientist.
2. Site Visit
  - a. The REHS visits the site and reviews the submitted site and soil data from the LSS for concurrence.
  - b. The REHS and LSS discuss the proposed long term acceptance rate (LTAR), configuration and installation depths of the drainfield(s), treatment standard, and any other design requirements dictated by the site and soil conditions.
  - c. Upon concurrence, the REHS and LSS determine the number, depth, and location of any hydraulic assessments (if required by rule), and whether any additional information must be provided with those assessments.
    - (a) REHS evaluates the results of the hydraulic assessments and the proposed LTAR.
3. The REHS provides all concerned parties with written documentation of the LTAR, drainfield configuration, and installation depth, treatment standard, site modifications, and any other design requirements.

#### E. Preliminary Site Plan Review

1. The applicant's PE prepares and submits a preliminary site plan showing system location, configuration, and layout based upon the LSS report.





2. The REHS issues one of the following types of letters to the PE and applicant:
  - a. Approval of the site plan;
3. The assigned REHS issues one of the following types of letters to the applicant, consulting PE, and other applicable parties:
  - a. An approval of the proposed daily design flow;
  - b. A request for revisions to the proposed daily design flow that includes
    - (a) A section detailing any required revisions with citation of the applicable statute or rule;
    - (b) A section detailing any suggested or recommended revisions based upon current knowledge base (guidance, manuals, or standards of practice);
  - c. A request for additional information that includes;
    - (a) A section detailing and required additional information with citations to statutes or rules; and
    - (b) A section detailing any suggested or recommended additional information based upon current knowledge base (guidance, manuals, or standards of practice).
4. If the preliminary site plan is approved, then system engineering plans and specifications review will be conducted. The REHS can issue the Improvement Permit (IP) upon confirmation of:
  - a. Suitable or Provisionally Suitable site and soil characteristics;
  - b. The field layout of the initial and repair drainfields and;
  - c. Identification and specification of any permit conditions.
5. If the preliminary site plan is not approved and the required revision and/or additional information identified by the REHS is submitted, then the proposal is reviewed again.
6. If the preliminary site plan is not approved and the Submitting Party declines to make the required revisions and/or provide the required additional information identified by the staff engineer, then the Submitting Party may request an Informal Internal Review as described in Part 2 A. of this report.

**F. System Engineering Plans and Specifications Review**

1. The REHS receives the system engineering plans and specifications.
2. The REHS reviews the system engineering plans and specifications and issues one of the following types of letters to the PE, applicant, and other applicable parties:





- a. An approval of the system engineering plans and specifications;
  - b. A request for revisions to the proposed daily design flow that includes
    - (a) A section detailing any required revisions with citation of the applicable statute or rule;
    - (b) A section detailing any suggested or recommended revisions based upon current knowledge base (guidance, manuals, or standards of practice);
  - c. A request for additional information that includes;
    - (a) A section detailing and required additional information with citations to statutes or rules; and
    - (b) A section detailing any suggested or recommended additional information based upon current knowledge base (guidance, manuals, or standards of practice).
3. If the proposed system engineering plans and specifications are not approved and the required revision and/or additional information identified by the REHS is submitted then the proposal is reviewed again.
  4. If the system engineering plans and specifications are not approved and the Submitting Party declines to make the required revisions and/or provide the required additional information identified by the REHS, then the REHS will issue a denial letter of the project submittal to the applicant, PE, and other applicable parties.
  5. The Submitting Party may request an Informal Internal Review. See Part 2A of this report.

G. REHS Review Approval

1. The REHS will issue the Authorization to Construct (AC) upon:
    - a. Confirmation that any site modifications required in the IP are complete, inspected, or reviewed, and approved [G.S. 130A-336(b)];
    - b. Field verification that the drainfield and repair areas have not been otherwise altered since issuance of the IP (unless IP and CA are concurrently issued) and re-confirmation that the drainfield layout is acceptable per the approved plans;
    - c. Review and approval of legal documentation as necessary, e.g.:
      - (a) Draft tri-party agreements in accordance with 15A NCAC 18A .1937(h).
      - (b) Final (recorded) easement agreement(s) and encroachment agreement(s) in accordance with 15A NCAC 18A .1938(j).
- H. Optional Preconstruction Meeting: DCoDPH-EH recommends a preconstruction meeting prior to any work being performed.







I. System Start-up and Inspection

1. The REHS and PE determine that system construction is complete.
2. The REHS, PE, and operator conduct a system start-up inspection to document the baseline performance parameters.
  - a. All parties documents any deficiencies in the installation and develop plans to correct them.
  - b. The parties either agree to meet on the site again to document correction of the deficiencies or allow the PE to independently oversee correction and provide documentation to that effect.
3. REHS issues the Operation Permit (OP) upon:
  - a. Receipt of certifications by all licensed professionals, including record (“as-built”) drawings if significant changes to the system design occurred during installation [15A NCAC 18A .1938(h)];
  - b. Receipt of updated Operation and Maintenance procedures and manual prepared by the PE, incorporating O&M requirements specific to the equipment provided by system component manufacturers [15A NCAC 18A.1939(i)(4)];
  - c. Confirmed execution and recordation of all required legal documents [15A NCAC 18A .1937(h), 15A NCAC 18A .1938(j)];
  - d. Receipt of a copy of a contract with an operator [15A NCAC 18A .1961(e)] certified by the Water Pollution Control System Operators Certification Commission to operate and maintain the system (G.S. 90A-46) and;
  - e. Confirmation that any requirements listed in the IP and CA (or referenced in the REHS approval letter) are complete, inspected or reviewed, and approved by the REHS.

VII. Public Swimming Pool Plan Review

1. DCoDPH-EH receives an application design Submittal submitted by a PE for a public swimming pool as defined in G.S. 130A-280 for plan review pursuant to G.S. 130A-282(a)(1) and 15A NCAC 18A .2509.
2. Application and design submittal are assigned to the Environmental Health Pool Program Specialist for review.
3. The Pool Program Specialist issues on of the following types of letters to the applicant, consulting PE, and other applicable parties:
  - a. An approval of the design proposal;
  - b. A request for revisions of the design proposal that includes:
    - i. A section detailing any required revisions with citation of the applicable statute or rule;





- ii. A section detailing any suggested or recommended revisions based upon current knowledge base (guidance, manuals, or standards of practice);
- c. A request for additional information that includes;
  - i. A section detailing any required additional information with citations to statutes or rules and;
  - ii. A section detailing any suggested or recommended additional information based upon current knowledge base (guidance, manuals, or standards of practice).
- 4. If the proposed system engineering plans and specifications are not approved and the required revision and/or additional information identified by the Pool Program Specialist are submitted, then the proposal is reviewed again.
- 5. If the plans and specifications are not approved and the Submitting Party declines to make the required revisions and/or provide the required additional information identified by the Pool Program Specialist, then the Pool Program Specialist will issue a denial letter of the project submittal to the applicant, PE, and other applicable parties.
- 6. The Submitting Party may request and Informal Internal Review. See Part 2B of this report.







**Part 1B: DCoDPH Food Protection and Facilities: Standardize Certain Regulatory Review Procedures**

*Reference Session Law 2014-120, Section 29.(b).*

- I. Facility Plan Review – DCoDPH facility plan review mirrors the FPF plan review application and review process as described in Part 1B Section 1 of the State report. Application and review for all facilities are limited to what is allowed in State rule.





**Part 2A: DCoDPH Onsite Water Protection Section Informal Internal Review  
Processes  
and  
Procedures to Develop and Maintain a List of Review Engineers**  
*Reference Session Law 2014-120, Section 29.(c).*

DCoDPH does not have a registered PE on staff for informal review.

- I. If a Submitting Party requests an Informal Internal Review of an engineered design, the request will be forwarded to the State in accordance with Part 2A Section III of the State report.
- II. A list of PEs available for Informal Internal Reviews will be developed in accordance with Part 2A Section IV of the State report.





**Part 2B: DCoDPH General Inspections Section Informal Internal Review Processes  
and  
Procedures to Develop and Maintain a List of Review Engineers**  
*Reference Session Law 2014-120, Section 29.(c).*

DCoDPH does not have a registered PE on staff for informal review.

- I. If a Submitting Party requests an Informal Internal Review of an engineered design, the request will be forwarded to the State in accordance with Part 2A Section III of the State report.
- II. A list of PEs available for Informal Internal Reviews will be developed in accordance with Part 2A Section IV of the State report.





**Part 3A: DCoDPH Onsite Water Protection Section Review of Working Job Titles**  
*Reference Session Law 2014-120, Section 29.(h).*

The Durham County Department of Public Health, Environmental Health Division, Onsite Water Protection Section has ZERO employees with the term, “engineer” in their working title.





**Part 3B: General Inspections Section Review of Working Job Titles**

*Reference Session Law 2014-120, Section 29.(h).*

The Durham County Department of Public Health, Environmental Health Division, General Inspections Section has ZERO employees with the term “engineer” in their working title.

